

Arizona State Retirement System

Investment Program Report

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Gary R. Dokes, Chief Investment Officer, ASRS

David Underwood, Assistant Chief Investment Officer, ASRS

Allan Martin, Partner, NEPC



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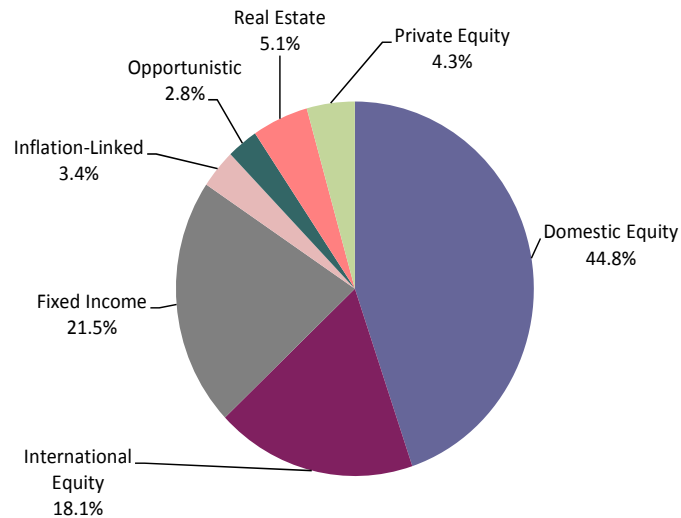
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* Evaluation period ending March 31, 2012

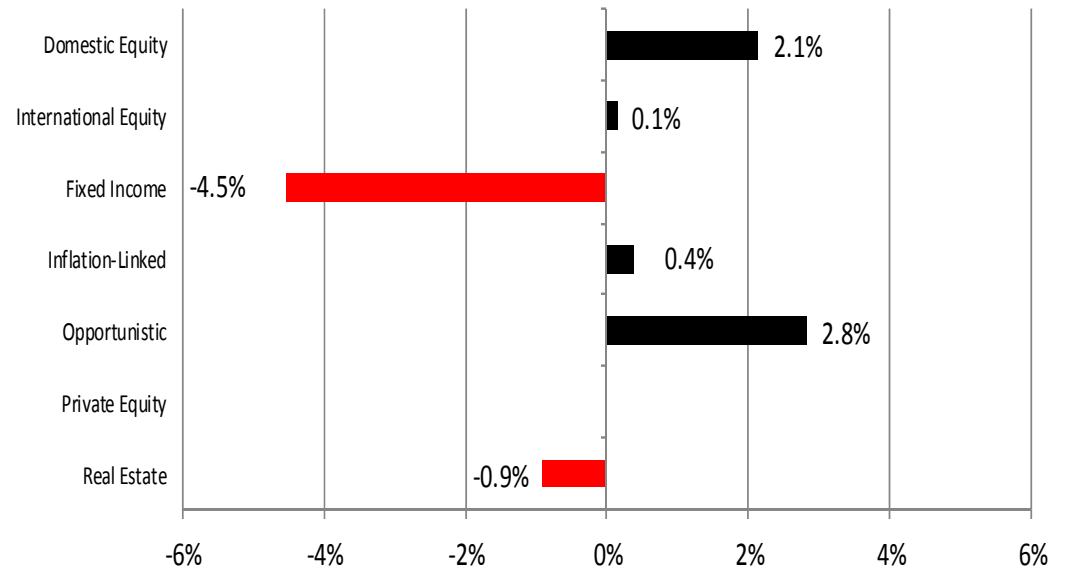


Total Fund Asset Allocation

Actual Portfolio – Assumed GTAA Allocation



Actual Portfolio – Assumed GTAA Allocation
vs. Adjusted SAA Policy*




*Private Equity actual weight is equal to policy weight during the implementation of the asset class.

*Over/Under- weights include both GTAA positions as well as IMD tactical considerations.

Note: Opportunistic, Real Estate and Private Equity market values are reported on a quarter-lag and adjusted to include the current quarter's cash flows. Within the Assumed GTAA Allocation vs. Adjusted SAA Policy chart, Private Equity was prorated to domestic equity.



Investment Program Investment Goals

- Macro
- 
- Goal #1: Achieve a total fund rate of return equal to or greater than the actuarial assumed interest rate.
 - Goal #2: Achieve a total fund rate of return equal to or greater than the strategic asset allocation policy.
 - Goal #3: Achieve a total fund rate of return equal to or greater than the amount projected in the most recent asset allocation study.
 - Goal #4: Achieve asset class net rates of return equal to or greater than their respective broad asset class benchmarks.
 - Goal #5: Achieve portfolio-level net rates of return equal to or greater than their respective portfolio benchmarks.
 - Goal #6: Ensure sufficient monies are available to meet cash flow requirements.
- Micro



Total Fund Performance

- Goal #1: Achieve a total fund rate of return equal to or greater than the actuarial assumed interest rate.

	<u>20 Year Annualized Return</u>
Total Fund	8.5%
Constant 8%	<u>8.0%</u>
Excess Return	0.5%

Goal Met: Yes



Total Fund Performance

- Goal #2: Achieve annual and three-year rolling annual rates of return equal to or greater than the return of the Strategic Asset Allocation Policy (SAA Policy)

	Quarter	1 Year	3 Years	5 Years	10 Years	Since Inception (6/30/75)
Total Fund	8.5%	4.5%	18.4%	3.1%	5.8%	9.9%
Interim SAA Policy¹	8.5%	4.0%	18.0%	3.0%	5.5%	9.7%
Excess Return	0.0%	0.5%	0.4%	0.1%	0.3%	0.2%

1 Year Goal Met: Yes
3 Year Goal Met: Yes



¹SAA Policy can be found on the last page of this presentation.

Total Fund Attribution Analysis

Total Plan	1 Year	3 Years	5 Years
Allocation Effect ¹	0.13	-0.28	0.00
Manager Selection Effect ²	0.26	0.65	0.24
Residual ³	0.14	0.07	-0.10
Excess Return	0.53	0.44	0.14

Source: State Street Investment Analytics

¹Contribution due to over/underweights relative to Interim* Strategic Asset Allocation Policy.

²Contribution due to manager selection (net) and interaction effect.

³Contribution due to activities not captured in Allocation and Manager Selection Effects.

*Pro-rates unfunded Private Equity allocation.



Total Fund Attribution Detail

1 Year Excess Return: 0.5%

- Allocation Effect: 0.13%
 - Fixed Income tactical underweight (-0.42%)
 - Commodities tactical underweight (+0.30%)
- Manager Effect: 0.26%
 - Private Equity outperformed due to various managers (+0.51%)
 - Large Cap and Small Cap Equity underperformed due to INTECH, LSV, and DFA (-0.25%)
 - GTAA outperformed due to Bridgewater (+0.14%)
 - Real Estate underperformed due to various managers (-0.09%)
- Residual: 0.14%

3 Years Excess Return: 0.4%

- Allocation Effect: -0.28%
 - International Equity tactical underweight (-0.32%)
 - Large Cap Equity tactical underweight (-0.25%)
 - Fixed Income tactical overweight (+0.24%)
- Manager Effect: 0.65%
 - Fixed Income outperformed due to F2 and BlackRock portfolios (+0.38%)
 - GTAA outperformed due to Bridgewater (+0.30%)
- Residual: 0.07%

5 Years Excess Return: 0.1%

- Allocation Effect: 0.00%
 - Real Estate tactical underweight (+0.11%)
 - International Equity tactical underweight (-0.07%)
- Manager Effect: 0.24%
 - GTAA outperformed due to Bridgewater (+0.30%)
 - International Equity underperformed due to Brandes, Hansberger, and terminated managers (-0.20%)
 - Fixed Income outperformed due to F2 and BlackRock portfolios (+0.13%)
- Residual Effect: -0.10%



Source: State Street Investment Analytics

Note: Explanatory details of each effect represent the most notable contributions and may not sum to the total effect.

Total Fund Performance

- Goal #3: Achieve a five-year rolling annual rate of return equal to or greater than the projected return expectation in the ASRS Asset Allocation Study.

	<u>5 Year Annualized Return</u>
Total Fund	3.1%
AA Expected Return	<u>8.8%</u>
Excess Return	-5.7%

Goal Met: **No**



Asset Class Performance vs. Benchmark

- Goal #4: Achieve annual and three-year rolling annual investment asset class net rates of return equal to or greater than their respective broad asset class

	1 Year Return	3 Year Return
ASRS Domestic Equity	6.1%	25.1%
ASRS Custom Domestic Equity Index ¹	7.1%	24.9%
Excess Return	-1.0%	0.2%
ASRS Int'l Equity	-5.5%	18.6%
ASRS Custom Int'l Equity Index ²	-5.9%	19.9%
Excess Return	0.4%	-1.3%
ASRS Fixed Income	8.0%	8.6%
ASRS Custom Fixed Income Index ³	7.7%	7.1%
Excess Return	0.3%	1.5%
ASRS GTAA	7.8%	21.6%
ASRS Custom GTAA Index ⁴	5.4%	17.7%
Excess Return	2.4%	3.9%
ASRS Inflation-Linked	-11.2%	n/a
ASRS Custom Inflation-Linked Index ⁵	-15.1%	4.1%
Excess Return	3.9%	n/a
ASRS Real Estate	13.6%	5.1%
NFI - ODCE Index	16.0%	-1.8%
Excess Return	-2.4%	6.9%
ASRS Private Equity	17.2%	12.8%
Russell 2000	-4.2%	15.6%
Excess Return	21.4%	-2.8%
ASRS Opportunistic ⁶	2.8%	18.7%

Goal Met: Partially

¹ASRS Custom Domestic Equity Index was S&P 500 through 12/31/2006; 74% S&P 500, 13% S&P 400, 13% S&P 600 through 12/31/2010; 70% S&P 500, 15% S&P 400 and 15% S&P 600 thereafter.

²ASRS Custom Int'l Equity Index was MSCI EAFE through 9/30/2005; MSCI ACWI ex-U.S. through 12/31/2010; 72% MSCI EAFE, 11% MSCI EAFE Small Cap and 17% MSCI Emerging Markets thereafter.

³ASRS Custom Fixed Income Index was Barclays Capital U.S. Aggregate Index through 12/31/2010; 93% Barclays Capital U.S. Aggregate Index, 7% Barclays Capital U.S. High Yield Bond Index thereafter.

⁴ASRS Custom GTAA Index was 56% S&P 500, 16% MSCI EAFE, 28% Barclays Capital Aggregate through 9/30/2011; 50% S&P 500, 19% MSCI EAFE, 28% Barclays Capital Aggregate, and 3% DJ UBS Commodities Index thereafter.

⁵ASRS Custom Inflation-Linked Index was 100% Barclays Capital U.S. TIPS through 7/31/2010; 50% Barclays Capital U.S. TIPS, 50% DJ UBS Commodities Index through 8/31/2010; 30% Barclays Capital U.S. TIPS, 70% DJ UBS Commodities Index through 5/31/2011; 100% DJ UBS Commodities Index thereafter.

⁶Net absolute rate of return expectations range from 10-14% per annum.



Manager Performance vs. Benchmark

- Goal #5: Achieve annual and three-year rolling annual portfolio level net rates of return equal to or greater than their respective policy benchmarks.

PUBLIC MARKET	1 Year	3 Years
Outperformers #	17	9
Underperformers #	18	12
Outperformers%	49%	43%

PRIVATE MARKET	1 Year	3 Years
Outperformers #	55	29
Underperformers #	25	32
Outperformers%	69%	48%

1 Year Goal Met: Partially
3 Year Goal Met: No



Cash Management

- Goal #6: Ensure all pension benefits, health insurance, member refunds, administrative payments and other requirements are made from available cash balances and without utilizing alternative liquidity options.

Apr-11	\$253,101,693	(\$161,771,576)	\$93,727,361
May-11	\$270,962,645	(\$161,964,540)	\$61,596,976
Jun-11	\$183,731,018	(\$162,505,428)	\$16,564,806
Jul-11	\$178,103,513	(\$162,908,155)	\$14,144,175
Aug-11	\$216,906,967	(\$165,616,891)	\$46,712,381
Sep-11	\$80,352,410	(\$168,208,098)	\$104,897,890
Oct-11	\$256,461,009	(\$169,518,891)	\$73,648,238
Nov-11	\$222,323,321	(\$170,109,936)	\$57,153,006
Dec-11	\$243,931,683	(\$170,499,953)	\$99,650,526
Jan-12	\$209,964,661	(\$170,410,561)	\$62,160,027
Feb-12	\$222,323,321	(\$170,775,472)	\$57,153,006
Mar-12	\$162,058,749	(\$171,573,237)	\$18,187,174

All Pension Obligations, Capital Calls and Other
Requirements Met with Available Cash

Goal Met: Yes



Total Fund Performance Comparison*

Independent Consultants Cooperative	1 Year	3 Years	5 Years	10 Years	Since Inception 6/30/75
Master Trust - Total Funds	37	13	44	46	n/a
Total Funds - Public Funds	33	12	40	45	n/a
Total Funds over \$1B - Public	18	11	19	51	n/a
Total Funds - Corporate	46	15	48	53	n/a

Callan Associates Inc.	1 Year	3 Years	5 Years	10 Years	Since Inception 6/30/75
Master Trust - Total Funds	41	13	39	49	40
Total Funds - Public Funds	31	8	31	45	28
Total Funds over \$1B - Public	27	9	24	61	28
Total Funds - Corporate	n/a	n/a	n/a	n/a	n/a

*The information contained herein is for comparison purposes only and is not a Total Fund performance benchmark. Peer universe comparisons are subject to several limitations, including: peer groups are not comprehensive, several funds are included in multiple peer groups, peer groups are constructed using gross of fee returns and survivorship bias in that poorly performing funds may no longer continue to report results.

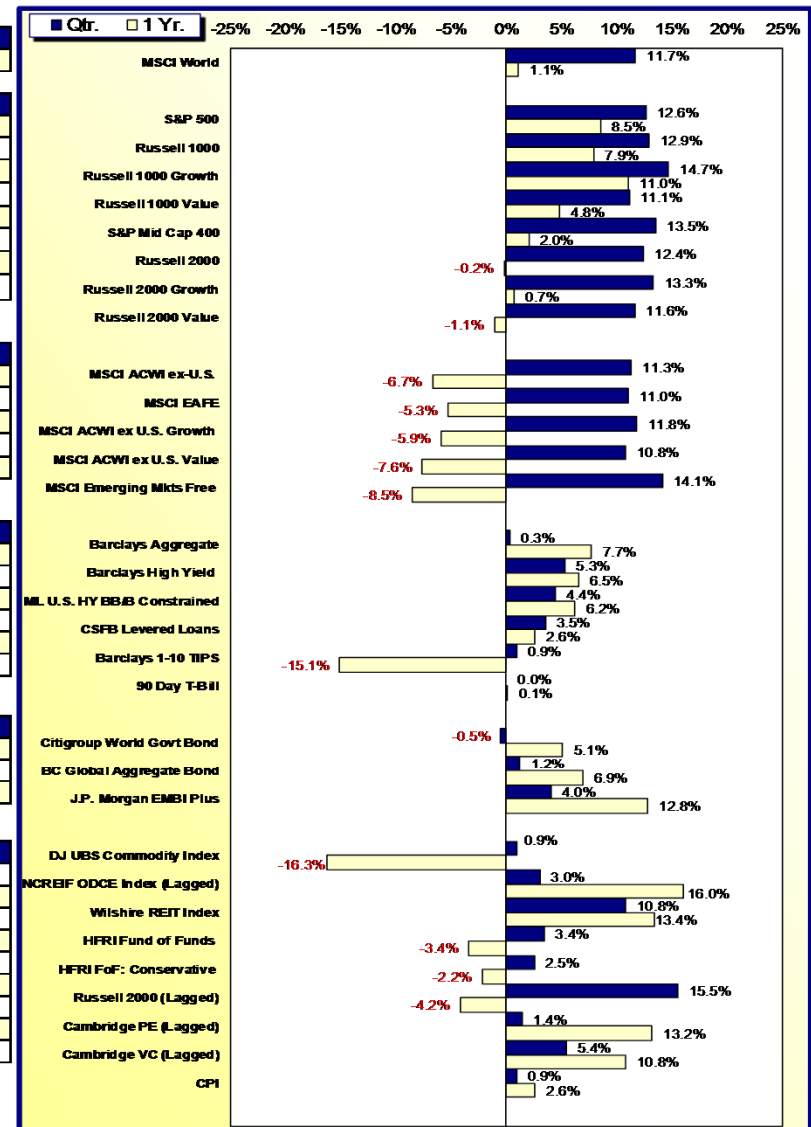
Note:

- Universes are constructed using gross of fee returns; therefore, the ASRS rank is based on gross of fee returns.
- Independent Consultants Cooperative's ranking not available going back to 1975 as database was created in 1992.
- Callan Associates' ranking for Total Funds - Corporate were not available at the time this report was completed.



Market Environment – Overview

		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
Domestic Equity Benchmarks						
MSCI World	World	11.7%	1.1%	20.9%	-0.1%	5.3%
Domestic Equity Benchmarks						
S&P 500	Large Core	12.6%	8.5%	23.4%	2.0%	4.1%
Russell 1000	Large Core	12.9%	7.9%	24.0%	2.2%	4.5%
Russell 1000 Growth	Large Growth	14.7%	11.0%	25.3%	5.1%	4.3%
Russell 1000 Value	Large Value	11.1%	4.8%	22.8%	-0.8%	4.6%
S&P Mid Cap 400	Mid Core	13.5%	2.0%	28.5%	4.8%	7.7%
Russell 2000	Small Core	12.4%	-0.2%	26.9%	2.1%	6.4%
Russell 2000 Growth	Small Growth	13.3%	0.7%	28.4%	4.2%	6.0%
Russell 2000 Value	Small Value	11.6%	-1.1%	25.4%	0.0%	6.6%
International Equity Benchmarks						
MSCI ACWI ex-U.S.	International	11.3%	-6.7%	19.6%	-1.1%	7.7%
MSCI EAFE	Int'l Developed	11.0%	-5.3%	17.7%	-3.0%	6.2%
MSCI ACWI ex U.S. Growth	Int'l Developed	11.8%	-5.9%	19.2%	-0.5%	7.1%
MSCI ACWI ex U.S. Value	Int'l Developed	10.8%	-7.6%	20.1%	-1.8%	8.4%
MSCI Emerging Mkts Free	Int'l Emerging	14.1%	-8.5%	25.4%	5.0%	14.5%
Domestic Fixed Income Benchmarks						
Barclays Aggregate	Core Bonds	0.3%	7.7%	6.8%	6.2%	5.8%
Barclays High Yield	High Yield	5.3%	6.5%	23.9%	8.1%	9.2%
ML U.S. HY BB/B Constrained	High Yield	4.4%	6.2%	20.0%	7.2%	8.2%
CSFB Levered Loans	Bank Loans	3.5%	2.6%	16.2%	3.6%	4.9%
Barclays 1-10 TIPS	Inflation-Linked	0.9%	-15.1%	4.1%	4.8%	6.1%
90 Day T-Bill	Cash	0.0%	0.1%	0.1%	1.2%	1.9%
Global Fixed Income Benchmarks						
Citigroup World Govt Bond	Global Bonds	-0.5%	5.1%	6.2%	6.8%	7.9%
BC Global Aggregate Bond	Global Bonds	1.2%	6.9%	5.5%	5.2%	5.2%
J.P. Morgan EMBI Plus	Em. Mkt. Bonds	4.0%	12.8%	16.0%	8.5%	11.4%
Alternative Benchmarks						
DJ UBS Commodity Index	Commodities	0.9%	-16.3%	9.0%	-2.8%	5.5%
NCREIF ODCE Index (Lagged)	Real Estate	3.0%	16.0%	-1.8%	-0.2%	6.2%
Wilshire REIT Index	REIT	10.8%	13.4%	44.7%	-0.7%	10.4%
HFRI Fund of Funds	Hedge Funds	3.4%	-3.4%	4.6%	-0.7%	3.5%
HFRI FoF: Conservative	Hedge Funds	2.5%	-2.2%	4.2%	-1.0%	2.9%
Russell 2000 (Lagged)	Private Equity	15.5%	-4.2%	15.6%	0.1%	5.6%
Cambridge PE (Lagged)	Private Equity	1.4%	13.2%	9.8%	5.1%	1.9%
Cambridge VC (Lagged)	Venture Capital	5.4%	10.8%	14.8%	7.2%	12.6%
CPI	Inflation	0.9%	2.6%	2.5%	2.2%	2.5%



Note: Alternative Benchmarks NCREIF ODCE, Russell 2000, Cambridge Private Equity and Cambridge Venture Capital are lagged by one quarter. Performance shown as of December 31, 2011.

Economic Environment

- **Annualized GDP growth came in at a moderately weak 1.9% in the first quarter, down from 3.0% in the fourth quarter.**
 - Retail sales decreased to a 6.1% year-over-year growth rate in March 2012.
 - The inventory liquidation process that was a boost to 2009 growth results has worn off, meaning demand must contribute to further growth.
 - Corporate profits as a percent of GDP stayed flat near secular highs of 13% during the first quarter.
 - The U.S. Trade Deficit increased by 14.1% in March to \$51.8 billion, which is the single biggest monthly increase in the past year.
- **The unemployment rate fell to 8.2% in March; U-6, a broader measure of unemployment, decreased to 14.5%.**
 - JP Morgan states that sustained GDP growth of 1.5% is needed for positive job creation, and closer to 3% growth is needed to decrease the unemployment rate.
- **Consumer confidence rose for the third straight quarter in Q1; the Case-Schiller Home Price Index remains more than two times off its high levels.**
- **Both capacity utilization and CPI fell in March to 78.6% and 2.7%, respectively.**
- **Fed Funds rate remains at 0.25% while the 10-year Treasury Yield finished March at 2.2%.**
- **The Fed's assets remained flat in the quarter as its efforts to provide liquidity to central banks leveled off.**
- **Despite the first quarter stock market rally, equities remain attractive relative to fixed income.**



Market Environment

Equities

- Global equity markets posted strong results in the first quarter as macro fears continued to subside and attention turned to improving fundamentals.
- Domestic Equity (S&P 500) outperformed International Equity (MSCI ACWI ex-U.S.) in the first quarter (+1.3%).
 - U.S. equity markets delivered the strongest first quarter gains in more than 10 years.
 - Economically sensitive sectors performed best and offered discounted valuations while defensive sectors lagged the market. All U.S. market cap segments posted double digit returns in the quarter, with mid caps leading the way, followed by large caps and then small caps; from a style perspective, growth outperformed value aided by heavier weightings in the Technology and Consumer Discretionary sectors.
 - Positive events at the European Central Bank, the successful refinancing of a portion of Greece's debt, and the further development of the European Financial Stability Facility drove European markets higher for the quarter.
 - Emerging markets returned 14.1% during the quarter, outperforming developed non-U.S. and U.S. markets in dollar terms, but lagging the U.S. markets as measured in local currency.

Fixed Income

- Treasury yields shifted higher during the quarter, with rates moving most at the longer end of the curve. At quarter-end, two-year Treasuries were yielding 0.3%, 10-year Treasuries were yielding 2.2%, and 30-year Treasuries were yielding 3.3%. Some steepness returned to the yield curve reflecting the market's belief that the Fed will continue to hold short-term rates at their current low levels.
- U.S. high-grade credit led investment grade sectors during the first quarter, followed by agency MBS. Financials, which underperformed for most of 2011, rallied in the first quarter, returning 5.1%, while industrials posted a modest return of 0.7%.
- Corporate credit and emerging markets led fixed income returns during the quarter, with the riskiest sectors – among them high yield bonds – performing the best. Fears over the solvency of the European banking sector ebbed with the apparent early success of the European Central Banks Long-Term Recovery Operation (LTRO) liquidity window for European banks, which was launched in December.



Market Environment (Continued)

Private Equity

- **Global private equity fundraising for the first quarter surpassed that of the same period in 2011 by 28%, with more than 110 funds raising approximately \$30 billion.**
 - Buyout funds accounted for the bulk of capital closings, raising close to \$18.5 billion; mezzanine funds closed on \$1.5 billion; fund of funds raised \$800 million; and other private equity funds accounted for roughly \$2.7 billion.
 - More U.S. venture capital funds held final closings in the first quarter of 2012 than in any quarter since 2008, with 47 funds closing on \$7 billion. On the exit front, 19 venture-backed companies went public in the U.S. during the quarter, raising \$1.5 billion. By dollars raised and IPO volume, these figures are the highest since the first quarter of 2007 and represent a 10% increase from 2011.

Real Estate

- **Core real estate sustained the improving trend shown in 2011 while non-core distressed properties maintained their slow recovery. On average, occupancies and rental rates continued to climb and new development remains extremely limited.**
 - Spreads between core real estate income yields and the five-year U.S. Treasury, however, remain close to all time highs.
 - Transaction volumes have slowed somewhat but still remain near pre-bubble levels. Significant capital flows, both equity and debt, continue into the core market.
 - Non-core real estate valuations continue to lag. Property valuations are still well below peak pricing and significant capital structure distress remains.

Commodities

- **Commodity prices started off the year strongly, riding positive news from Europe and returning 5% through February. Fears surrounding Chinese growth, however, led to a sell-off in March and a 0.9% return for the quarter as measured by the Dow Jones UBS Commodity Index.**
 - Leaders within commodity markets during the quarter were oil and gold, both of which posted strong positive returns.
 - Oil prices finished the quarter at \$103.02 per barrel; gold was valued at \$1,668 per ounce.



Is It Still Okay To Be Adding To Risky Assets?

- **NEPC opened 2012 with the recommendation to increase allocations to risky asset categories**
- **Global stock, credit, and commodity markets have started 2012 with a robust (and gratifying) rally**
 - S&P 500 +12.6% through 3/31/2012
 - EAFE +10.9%
 - EM Equity +14.1%
 - Barclays Capital HY +5.3%
 - GSCI Commodity +5.9%
- **Given this price action, is it appropriate to consider whether our 2012 Recommendations have changed?**

Is It Still Okay To Be Adding To Risky Assets?

- **We have re-evaluated the fundamental building blocks of our valuation models and conclude:**
 - Equities and credit (including emerging markets) still appear relatively attractive on a valuation basis
 - Treasury yields have risen modestly, but remain near secular lows
 - The underlying economic environment has not changed meaningfully (and has perhaps gotten better)
- **We are comfortable that our 2012 recommendations remain sound**
 - Emerging market stocks and bonds remain attractive
 - Credit strategies have highest risk-adjusted expected returns
 - Lock-up strategies are positioned to harvest attractive illiquidity premium
- **Important to pursue in context of risk-budgeting framework**
 - Do not get complacent, short-term spikes in volatility are likely
 - Risks include: Euro-zone debt crisis flare-up, political issues during Presidential election year in US, hard-landing in China, turmoil in the Middle East
 - Maintain exposure to deflation- and inflation-hedging assets, ideally through risk parity strategies
 - Take advantage of market dips to build exposure to risky assets

Key Risk: Euro-Zone Debt Crisis – Potential Outcomes

- **Extension of current approach: “Kick the can down the road”**
 - Unlikely long-term solution, but likely calibrated to lead to...
- **European Fiscal Union**
 - One monetary policy and one currency – supported by one fiscal policy across all countries
- **Breakup of the Euro**
 - Into Stronger Euro (Germany, France, etc.) with peripheral nation(s) out
 - Into Weaker Euro without Germany (and perhaps others)
- **Total chaos**
 - Contagion spreading globally, complete dissolving of European Monetary Union, social upheaval, etc.

Key question: Is Any Default Process or Departure from the Euro Managed or Unmanaged?

- Some degree of managed sovereign and/or major financial institutions default/ restructuring or even re-composition of the Euro may be constructive
- An unmanaged process could be very damaging to global economy and markets

The situation is very fluid and changes on a day-to-day basis

- Recent actions by policymakers appear to have stabilized the situation in the near-term
- Some degree of fiscal consolidation remains the most stable potential outcome
- It is likely that the current structures in place will be used to extend the existing Eurozone in the near term
- Additional volatility is likely, however, as the situation evolves

IMD Investment House Views

- **U.S. Equities**

- U.S. stocks slid about 8% from early April after having lost the upward momentum experienced during 1Q2012. Besides concern of the spillover effects of a messy potential exit by Greece from the Eurozone, attention remains focused on the peaking of near-term corporate profitability, as growth rates were already expected to decelerate.
- Consensus expectation is for nearly no growth in 1H2012 followed by acceleration over 2H2012. Little suggests other than this is the effect of a mid-cycle slowing, since raw material prices are down and there are no wage pressures.
- Modest further price corrections in the short run would, therefore, not be surprising prior to the markets staging the next advance as valuations remain reasonable compared to other asset classes, the U.S. macroeconomic setting is more stable and various measures of risk are subdued.
- IMD has a tactical bias to large cap and greater emphasis on U.S. Equities relative to Non-U.S. Developed Markets (EAFE) Equities.

- **International Equities**

- Rising anxiety about the consequences of a more likely Greek exit from the EMU has led global capital markets to move away from the first quarter's optimism and preference for riskier assets. The MSCI World index is now flat year-to-date, having reversed some 10% from its March peak.
- There is a general wariness among the markets that Southern Europe's protracted fiscal difficulties will engender a repeat of the 2H2011 environment or worse. However, unlike 2011's precipitous rout, the markets are generally selling into rallies.
- Markets are also more selective this time. The U.S. markets, driven by earnings, have outperformed Southern Europe's for the past three years, but trail German markets. Similar anomalies exist across other global markets. While slowing in most regions, and recessionary in most of the Eurozone, global real GDP is still growing, as are corporate profits.
- Equity markets have recently priced in an approximate 12-15% contraction in earnings as opposed to less-bearish conservative estimates of 5-10% growth over the next year. Downside risks to the markets appear modest relative to the potential for higher stock prices by year-end, but advances are likely to be labored in the interim.
- IMD has maintained the Non-U.S. Equities asset class at approximately equal weight to SAA policy since 2010, but in 4Q2011 reallocated 1.5% (TF) within the asset class from the EAFE sub-classes to Emerging Markets (EM) beta and active strategies. The resulting 1.5% (TF) EM overweight vs. SAA policy reflects IMD's objective for a proportionally larger strategic allocation to EM.



IMD Investment House Views

- **Fixed Income**

- The sovereign debt crisis in Europe continues to pose significant uncertainty for the outlook for risky assets. Without a forceful, broad-based program by the European community to stem a potential crisis caused by a possible withdrawal by Greece from the Euro and the banking crisis in Spain, the credit markets could sell off sharply.
- IMD would view a meaningful sell-off as a potential buying opportunity for riskier asset classes such as high yield bonds as the outlook for corporate credit remains positive in the U.S. Earnings have generally exceeded expectations, defaults have been low, and balance sheets have significantly improved since the 2008 credit crisis.
- IMD is less optimistic about the intermediate outlook for core fixed income (investment grade bonds) given the current low yields of U.S. Treasuries.

- **Private Equity**

- IMD favors managers focused on mid-market and smaller target companies where multiples continue to be attractive and there is less competition from public debt and equity alternatives; as well as on managers with strong operational skill sets to help target companies grow EBITDA; and has tactically focused on managers with distressed and turnaround skill sets that enable them to capitalize on a deleveraging environment.
- IMD believes in the long-term prospects of the natural resources sector and will continue to make investments in this area, as well as considering a tactical increase in focus on secondary funds and potential new initiatives in infrastructure and emerging markets.

- **Real Estate**

- Real estate is benefitting from a gradually improving economy.
- Apartments and hotels are seeing demand return to pre-crash levels. Office and industrial properties have a positive trend in occupancy, but vacancy rates in many markets are still too high for landlords to have pricing power. Retail is still at record vacancy levels even in an environment where consumer spending is improving, reflecting structural changes in the retail market.
- For sale housing remains challenged, although public market activity may reflect optimism of a recovery. Continuing dislocations in the debt market present both challenges and opportunities as debtors and creditors continue to work through the necessary process of resolution.



IMD Investment House Views

- **Commodities**

- IMD increased its exposure at the beginning of March to return to a policy weight position after gaining some confidence in stabilizing U.S. growth and the largest European fears being avoided while recognizing concerns linger.
- Given further weakness in global growth (particularly in Europe) and some signs of a slowdown domestically, the ASRS returned to actual-to-policy underweight when the new SAA was implemented by not increasing its position to the new 4% target weight. The European debt crisis continues to loom with implications for the USD, and signs of improved navigation or stimulus could provide buoyancy to commodities.
- Long-term, the thesis for the asset class will be driven by emerging market demand, supply concerns (export restrictions, weather related, legislative, etc.), Fed policy/weak USD, and institutional acceptance of commodities as an asset class.

- **Opportunistic**

- IMD maintains its select structured credit and distressed investments made primarily through ASRS opportunistic public fixed income investment managers (separate accounts and GP/LP structures). Opportunistic Private Investments have a policy allocation of 0-3% which resides within ASRS 0-10% SAA aggregate opportunistic investment policy.
- Initial allocations in the private opportunistic space have focused on direct lending. IMD is exploring relationships with regional real estate operators for additional private opportunistic investments and co-investments with existing partners.

IMD's Recent Activities and Initiatives

- **Implementation of Strategic Asset Allocation Study**
- **E1 portfolio to E7/E8 transition**
- **Implementation of Order Management System**
- **Asset Class Committee Activities**
- **Procurement of Investment Services and Securities Litigation Legal Counsel**

Appendix

Strategic Asset Allocation (SAA) Policy History

- 7/1/75 – 12/31/79 – 40% S&P 500/60% Barclays Capital Aggregate
- 1/1/80 – 12/31/83 – 50% S&P 500/50% Barclays Capital Aggregate
- 1/1/84 – 12/31/91 – 60% S&P 500/40% Barclays Capital Aggregate
- 1/1/92 – 12/31/94 – 50% S&P 500/10% MSCI EAFE/40% Barclays Capital Aggregate
- 1/1/95 – 6/30/97 – 45% S&P 500/15% MSCI EAFE/40% Barclays Capital Aggregate
- 7/1/97 – 12/31/99 – 50% S&P 500/15% MSCI EAFE/35% Barclays Capital Aggregate
- 1/1/00 – 9/30/03 – 53% S&P 500/17% MSCI EAFE/30% Barclays Capital Aggregate
- 10/1/03 – 12/31/06 – 53% S&P 500/15% MSCI EAFE/ACWI ex-U.S.¹/26% Barclays Capital Aggregate/6% NCREIF ODCE (lagged one quarter)
- 1/1/07 – 10/31/2009 – 31% S&P 500/7% S&P 400/7% S&P 600/18% MSCI ACWI ex-U.S./5% Russell 2000 (lagged one quarter)/26% Barclays Capital Aggregate/6% NCREIF ODCE (lagged one quarter)
- 11/1/2009 – 6/30/2012 – 28% S&P 500/6% S&P 400/6% S&P 600/13% MSCI EAFE/2% MSCI EAFE Small Cap/3% MSCI Emerging Markets/7% Russell 2000 (lagged one quarter)/24% Barclays Capital Aggregate/2% Barclays Capital High Yield/6% NCREIF ODCE (lagged one quarter)/3% Dow Jones/UBS Commodities Index
- 7/1/2012 – present – 23% S&P 500/5% S&P 400/5% S&P 600/14% MSCI EAFE/3% MSCI EAFE Small Cap/6% MSCI Emerging Markets/7% Russell 2000 (lagged one quarter)/13% Barclays Capital Aggregate/5% Barclays Capital High Yield/4% Emerging Markets Debt/3% Private Debt/8% NCREIF ODCE (lagged one quarter)/4% Dow Jones/UBS Commodities Index
- *Interim SAA Policy: 31% S&P 500/6% S&P 400/6% S&P 600/13% MSCI EAFE/2% MSCI EAFE Small Cap/3% MSCI Emerging Markets/4% Russell 2000 (lagged one quarter)/24% Barclays Capital Aggregate/2% Barclays Capital High Yield/6% NCREIF ODCE (lagged one quarter)/3% Dow Jones/UBS Commodities Index

Note: Interim SAA Policy includes a proration of 3% Private Equity, which is unfunded. Private Equity was prorated to domestic equity.

Recently approved Strategic Asset Allocation Policy effective July 1, 2012.

¹MSCI EAFE/ACWI ex-U.S. Benchmark is the MSCI EAFE Index prior to 10/1/2005 and the MSCI ACWI ex-U.S. thereafter

